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IS : 6498 - 1971

Indian Standard

GLOSSARY OF TERMS USED IN CONNECTION WITH PULLEY BLOCKS

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GLOSSARY OF TERMS USED IN CONNECTION WITH PULLEY BLOCKS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 30 December 1971, after the draft finalized by the Lifting Chains and Associated Fittings and Components Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 This glossary of terms has been prepared for the guidance of manufacturers and users of pulley blocks to assist them in the correct interpretation of the common terms used in the industry and trade. It is hoped that this standard will help in establishing a generally recognized usage and eliminate ambiguity and confusion arising out of the individual interpretation of terms.

0.3 A four digit number has been assigned to each term in this glossary. The first digit represents the number of the section, the second digit represents the number of the subsection under which the term comes and the last two digits represent the serial number of the term.

0.4 In the preparation of this standard considerable assistance has been derived from Doc : BS 68/33324 'Second Draft British Standard Glossary of terms used in materials handling, Part 6. Terms used in connection with pulley blocks' issued by the British Standards Institution.

1. SCOPE

1.1 This standard defines the various terms used in the industry in connection with pulley blocks.

2. TERMINOLOGY

SECTION I ROPE PULLEY BLOCKS

Subsection I Types of Blocks

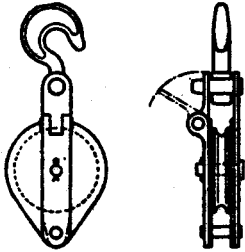
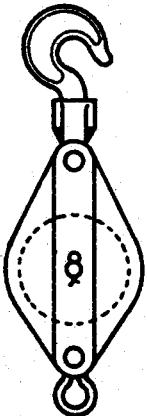
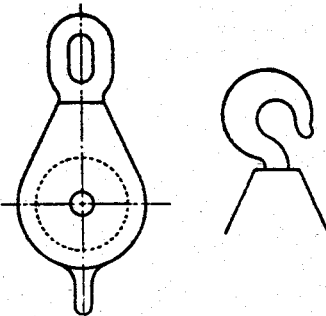
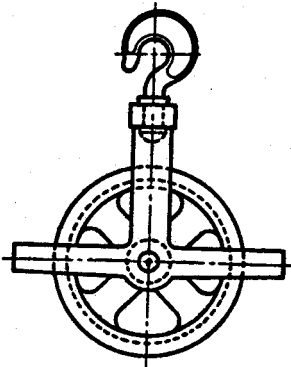
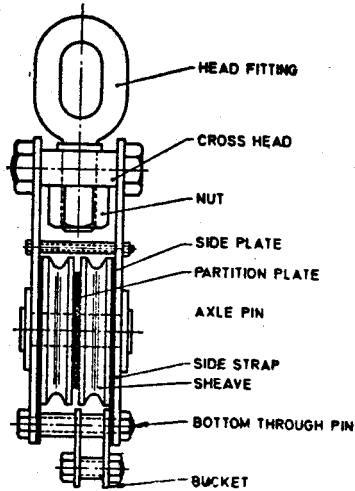
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1101	Pulley Block	A block with sheave(s) for use with wire rope or fibre rope, and forming part of a rope purchase	—
1102	Single, Double, Treble, Four-fold, Five-fold, or Six-fold Block	A block with one, two, three, four, five or six sheaves, respectively	—
1103	Snatch Block	A single block with a hinged portion through which a rope can be passed to facilitate rigging	
1104	Ships' Cargo Block	A block specially designed for ships' cargo handling. The blocks have varying types of head fitting, depending upon the position in the rig	—

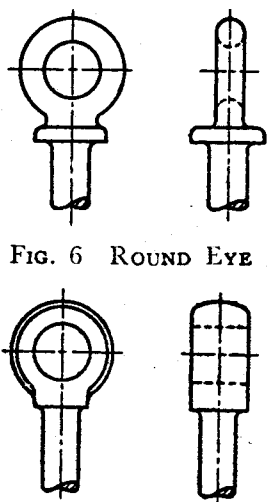
FIG. 1

REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1105	Engi- neering Block	A block designed for general engineering purposes. The blocks have varying types of head fitting, depending upon the required usage and the position in the purchase	—
1106	London Pattern Block	A plate-sided block for use with fibre rope. Normally single, double, treble, or snatch, having a swivel hook and becket	 <p>FIG. 2</p>
1107	Malle- able Block	A malleable iron block, normally galvanized, with sheaves suitable for fibre rope, usually fitted with an eye or hook	 <p>FIG. 3</p>

REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1108	Gin Block	A sheave housed in a malleable iron frame having a swivel hook. Used with fibre rope, and sometimes referred to as a 'rubbish pulley' or 'gin wheel'	 <p>FIG. 4</p>

Subsection 2 Block Components

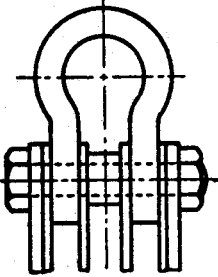
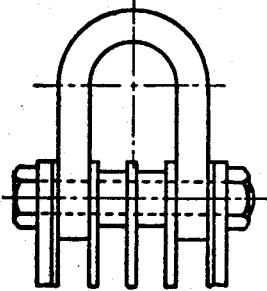
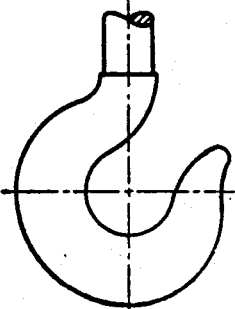
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1201	Names of Block Components	The names of typical block components are given in the figure	 <p>FIG. 5</p>
1202	Block Shell	The framework of the block, excluding sheave(s)	—

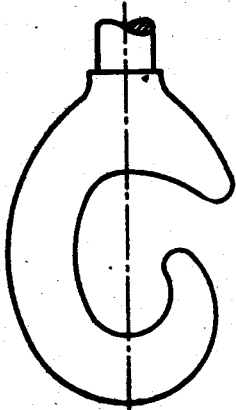
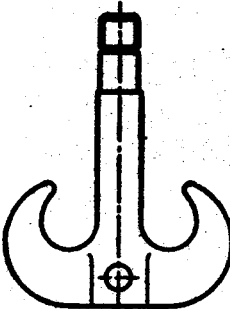
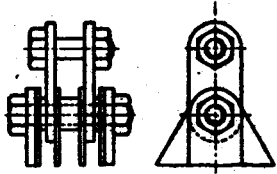
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1203	Sheave	A pulley, grooved to suit either wire rope or fibre rope; and fitted with either plain bush, self-lubricating bush, or with ball or roller bearings	—
1204	Axle Pin	The pin on which the sheave rotates	—
1205	Becket	The fitting on the block to which the rope used in the purchase is secured	—
1206	Cross-head	A cross-member attached to the upper part of a block, and housing the shank of a head fitting	—
1207	Head Fitting	The means by which the block is attached to its anchorage or to the load being lifted. Typical head fittings are shown in Fig. 6 to 18	 <p>FIG. 6 ROUND EYE</p> <p>FIG. 7 STUD EYE</p>

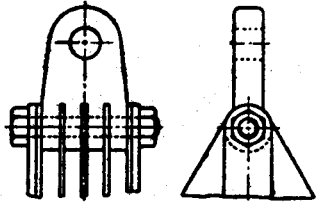
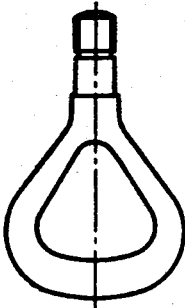
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REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1207 <i>Contd</i>			<div> </div> <p>FIG. 8 OVAL EYE</p> <div> </div> <p>FIG. 9 DOUBLE LUG</p> <div> </div> <p>*FIG. 10 DUTCH BILL EYE</p> <p>(Continued)</p>

*See IS : 4478-1968 'Glossary of terms for ships derrick'.

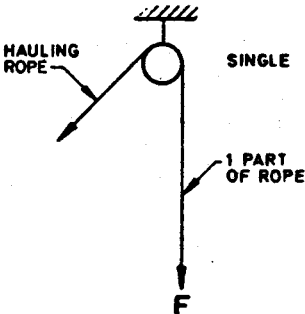
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1207 <i>Contd</i>			 <p>FIG. 11 FIXED BOW SHACKLE</p>  <p>FIG. 12 FIXED DEE SHACKLE</p>  <p>FIG. 13 POINT HOOK</p> <p>(Continued)</p>

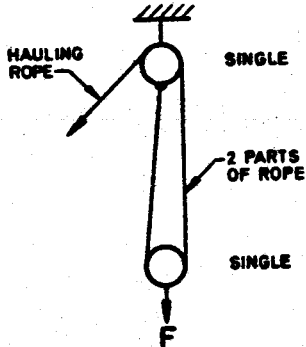
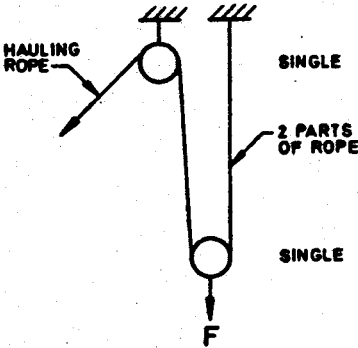
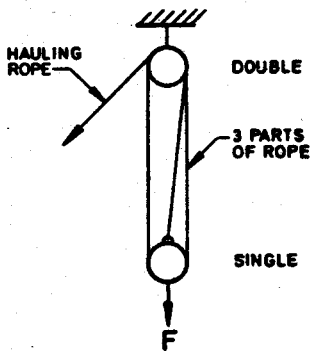
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1207 <i>Contd</i>			 <p>FIG. 14 'C' HOOK</p>  <p>FIG. 15 RAMSHORN HOOK</p>  <p>FIG. 16 PLATE LINK</p> <p>(Continued)</p>

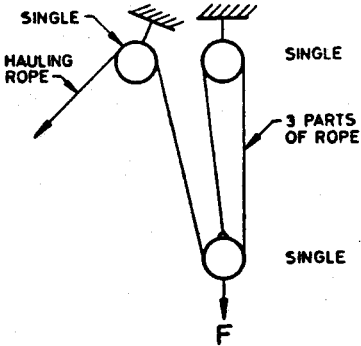
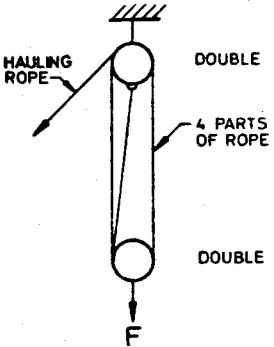
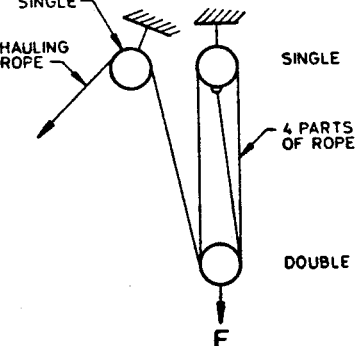
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
1207 <i>Contd</i>			 <p>FIG. 17 PLATE CROSSHEAD</p>  <p>FIG. 18 TRIANGULAR LIFTING EYE</p>

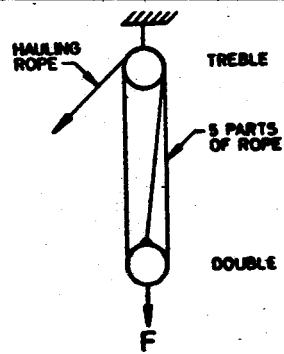
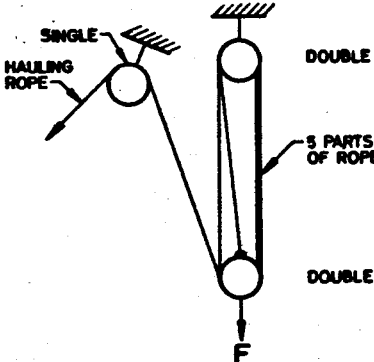
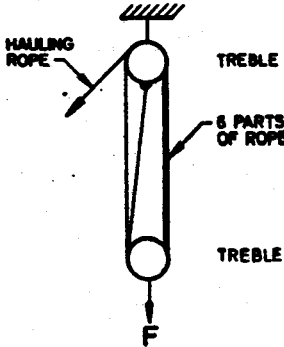
SECTION 2 ROPE TACKLES

Subsection 1 Forms of Purchase

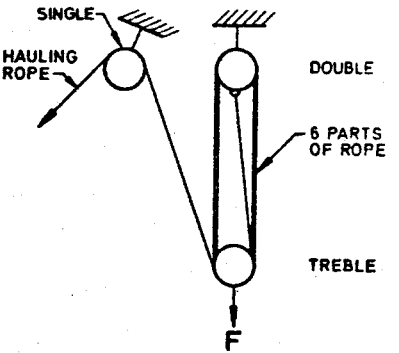
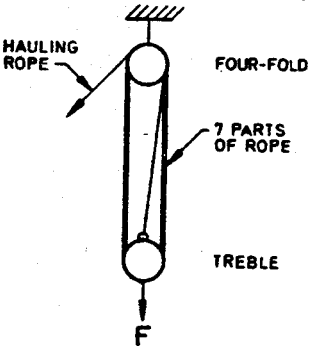
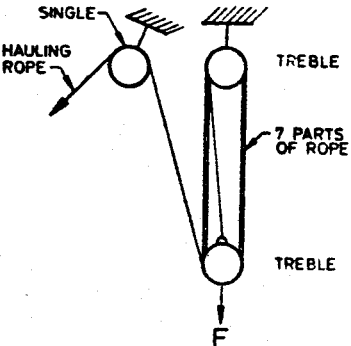
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
2101	Single-Part Purchase	Force, F , held on 1 fall rope commonly used for routine loads on ships' derricks	 <p>FIG. 19 SINGLE</p>

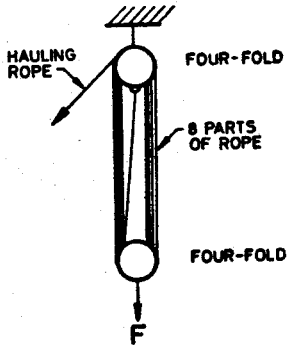
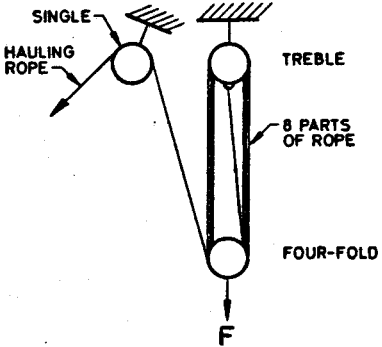
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
2102	Two-Part Purchase	Force, F , held on 2 fall ropes	 <p>FIG. 20 SINGLE AND SINGLE</p>
		Fig. 21 is sometimes referred to as a gun tackle rig, and is commonly used on ships' derricks	 <p>FIG. 21 SINGLE AND SINGLE</p>
2103	Three-Part Purchase	Force, F , held on 3 fall ropes	 <p>FIG. 22 DOUBLE AND SINGLE</p> <p>(Continued)</p>

REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
2103 <i>Contd</i>			 <p>FIG. 23 SINGLE AND SINGLE AND LEAD BLOCK</p>
2104	Four-Part Purchase	Force, F , held on 4 fall ropes	 <p>FIG. 24 DOUBLE AND DOUBLE</p>  <p>FIG. 25 SINGLE AND DOUBLE AND LEAD BLOCK</p>

REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
2105	Five-Part Purchase	Force, F , held on 5 fall ropes	 <p>FIG. 26 TREBLE AND DOUBLE</p>
			 <p>FIG. 27 DOUBLE AND DOUBLE AND LEAD BLOCK</p>
2106	Six-Part Purchase	Force, F , held on 6 fall ropes	 <p>FIG. 28 TREBLE AND TREBLE</p>

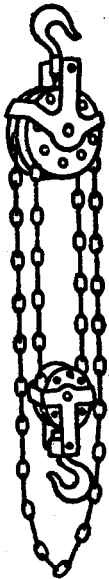
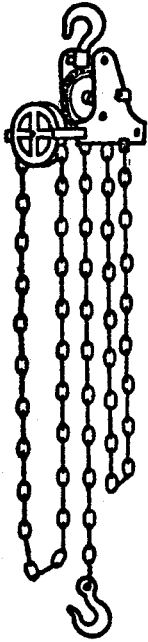
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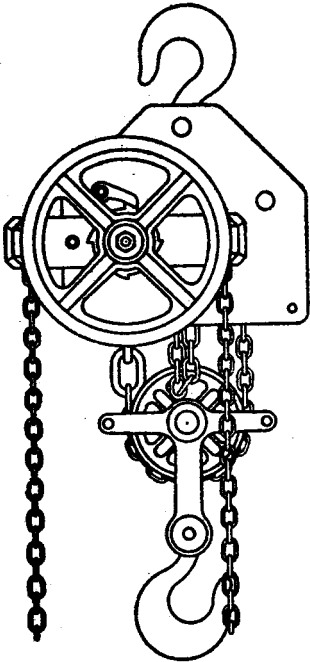
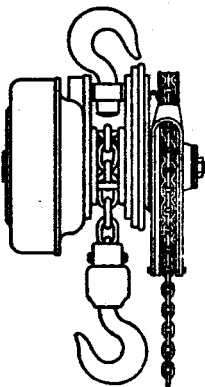
REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
2106 <i>Contd</i>			 <p>FIG. 29 DOUBLE AND TREBLE AND LEAD BLOCK</p>
2107	Seven- Part Purchase	Force, F , held on 7 fall ropes	 <p>FIG. 30 FOUR-FOLD AND TREBLE</p>  <p>FIG. 31 TREBLE AND TREBLE AND LEAD BLOCK</p>

REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
2108	Eight-Part Purchase	Force, F , held on 8 fall ropes	 <p>FIG. 32 FOUR-FOLD AND FOUR-FOLD</p>  <p>FIG. 33 TREBLE AND FOUR-FOLD AND LEAD BLOCK</p>
2109	Fall Ropes	The parts of ropes as illustrated in Fig. 19 to 33 supporting the force, F , held by the purchase. The number of all ropes determines the mechanical advantage of the purchase	—

SECTION 3 CHAIN PULLEY BLOCKS

Subsection I

REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
3101	Chain Pulley Block	<p>A hand-operated hoist of the following types:</p> <ol style="list-style-type: none"> 1) Differential type, 2) Worm gear type, 3) Spur gear type, and 4) Triple spur gear type 	 <p>FIG. 34 DIFFERENTIAL PULLEY BLOCK</p>  <p>FIG. 35 WORM GEAR PULLEY BLOCK (Continued)</p>

REF No.	TERM	DEFINITION	TYPICAL EXAMPLE
3101 <i>Contd</i>			 <p>FIG. 36 SPUR GEAR PULLEY BLOCK</p>  <p>FIG. 37 TRIPLE SPUR GEAR PULLEY BLOCK</p>

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	Unit	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	Unit	Symbol
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	Unit	Symbol	Conversion
Force	newton	N	1 N = 1 kg·1 m/s ²
Energy	joule	J	1 J = 1 N·m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V·s
Flux density	tesla	T	1 T = 1 Wb/m ²
Frequency	hertz	Hz	1 Hz = 1 c/s (s ⁻¹)
Electric conductance	siemens	S	1 S = 1 A/V
Pressure, stress	pascal	Pa	1 Pa = 1 N/m ²

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